Observations of Occultations of Stars by the Moon made at the Royal Observatory, Greenwich, in the year 1905.

(*Communicated by the Astronomer Royal.*)

Day.	Phenomenon.	Telescope.	Power.	Moon's Limb.	Mean Solar Time of Observation. h m s	Observer.
1905. Jan. 10	Disapp. ϕ Aquarii	Thompson Equat. (Hodgson)	100	Dark	5 8 40·14	D. E.
10	,, ,,	Astrographic Equatorial	225	,,	5 8 40·32	W.
10	,, ,,	Sheepshanks Equatorial	100	,,	5 8 40·82	S. D.
10	Reapp. ,,	Thompson Equat. (Hodgson)	100	Bright	6 22 18·71	D. E.
17	Disapp. Bradley 686	Merz Refractor	250	Dark	9 39 27·11	C. D.
17 (*a*)	,, ,,	Astrographic Equatorial	225	,,	9 39 26·52	H. F.
17	,, ,,	Sheepshanks Equatorial	100	,,	9 39 26·73	S. D.
18 (*a*)	,, 130 Tauri	Astrographic Equatorial	225	,,	5 57 50·76	H.
18	,, ,,	Great Equatorial	670	,,	5 57 49·96	H. F.
18 (*b*) (*c*)	,, ,,	Sheepshanks Equatorial	100	,,	5 57 49·88	W.
18	,, ,,	Great Equatorial (Corbett)	120	,,	5 57 49·36	R. C.
18	,, ,,	Old Altazimuth	100	,,	5 57 (52·27)	S. D.
19	,, 26 Geminorum	Merz Refractor	250	,,	4 50 20·06	P. M.
19	,, ,,	Sheepshanks Equatorial	100	,,	4 50 20·84	J. S.
19	,, ,,	Astrographic Equatorial	225	,,	4 50 20·88	W. S.
19	,, ,,	Great Equatorial	670	,,	4 50 21·12	B. E.
Feb. 17	,, W. B (2) VIII. 211	Astrographic Equatorial	225	,,	6 36 19·63	W. S.
17	,, ,,	Sheepshanks Equatorial	100	,,	6 36 21·06	R. C.

Day. 1905.	Phenomenon.		Telescope.	Power.	Moon's Limb.	Mean Solar Time of Observation. h m s	Observer
Mar. 12 (*a*)	Disapp.	48 Tauri	Astrographic Equatorial	225	Dark	7 53 36·73	H.
12	,,	,,	Sheepshanks Equatorial	100	,,	7 53 36·80	H. F.
12	,,	,,	Old Altazimuth	100	,,	7 53 (34·50)	J.
16 (*a*)	,,	Piazzi VII. 261	Astrographic Equatorial	225	,,	10 4 23·75	H.
16	,,	,,	Sheepshanks Equatorial	100	,,	10 4 24·14	J.
19	,,	56 Leonis	Great Equatorial	670	,,	11 2 9·30	D.
19	,,	,,	Great Equatorial (Corbett)	120	,,	11 2 9·30	B. E.
Apr. 12	,,	W. B. (2) VII. 685	Great Equatorial	670	,,	6 38 13·72	W. B.
12	,,	,,	Sheepshanks Equatorial	100	,,	6 38 13·71	W.
12	,,	,,	Merz Refractor	250	,,	6 38 14·02	P. M.
12	,,	,,	Astrographic Equatorial	225	,,	6 38 14·05	W. S.
12	,,	,,	Great Equatorial (Corbett)	120	,,	6 38 13·72	V.
12	Reapp.	,,	Sheepshanks Equatorial	100	Bright	6 45 31·92	W.
12	Disapp.	W. B. (2) VII. 761	,, ,,	100	Dark	7 35 34·59	V.
12	,,	B. D. + 17°, 1612	,, ,,	100	,,	7 42 49·21	V.
12	,,	W. B. (2) VII. 782	Astrographic Equatorial	225	,,	8 0 39·73	W. S.
12	,,	,,	Sheepshanks Equatorial	100	,,	8 0 40·92	V.
12	,,	W. B. (2) VII. 796	Astrographic Equatorial	225	,,	8 5 57·86	W. S.
12	,,	,,	Sheepshanks Equatorial	100	,,	8 5 58·37	V.
12	,,	W. B. (2) VII. 793	Astrographic Equatorial	225	,,	8 8 54·09	W. S.

Day.	Phenomenon.	Telescope.	Power.	Moon's Limb.	Mean Solar Time of Observation. h m s	Observer
1905.						
Apr. 12	Disapp. W.B. (2) VII. 793	Sheepshanks Equatorial	100	Dark	8 8 53·98	V.
12	,, B. D. + 17°, 1619	Astrographic Equatorial	225	,,	8 21 18·34	W. S.
12	,, B. D. + 17°, 1616	,, ,,	225	,,	8 23 6·05	W. S.
14	,, W. B. X. 431	,, ,,	225	,,	8 14 7·29	W. S.
14	,, Lalande 18635	,, ,,	225	,,	8 24 16·62	W. S.
15	,, 44 Leonis	,, ,,	225	,,	8 2 43·54	H.
15	,, ,,	Great Equatorial	670	,,	8 2 43·63	H. F.
15	,, ,,	Great Equatorial (Corbett)	120	,,	8 2 43·83	Bies.
15	,, Piazzi X. 67	Astrographic Equatorial	225	,,	8 13 56·88	H.
15 (*d*)	,, ,,	Great Equatorial	670	,,	8 13 56·18	H. F.
15	,, Piazzi X. 67 (Comes)	Astrographic Equatorial	225	,,	8 14 4·06	H.
15 (*b*)	,, ,,	Great Equatorial	670	,,	8 13 59·66	H. F
15	Reapp. 44 Leonis	Astrographic Equatorial	225	Bright	9 13 58·66	H.
17 (*a*)	Disapp. η Virginis	Sheepshanks Equatorial	100	Dark	8 17 11·64	H. F.
17	,, ,,	Astrographic Equatorial	225	,,	8 17 12·35	W. S.
May 9	,, Lalande 14319	,, ,,	225	,,	9 7 3·91	W. S.
10	,, W. B. (2) VIII. 230	Sheepshanks Equatorial	100	,,	9 31 44·91	H. F.
10	,, ,,	Astrographic Equatorial	225	,,	9 31 45·06	W. S.

Day. 1905.	Phenomenon.	Telescope.	Power.	Moon's Limb.	Mean Solar Time of Observation. h m s	Observer.
May 10	Disapp. W. B. (2) VIII. 260	Astrographic Equatorial	225	Dark	10 2 31·91	W. S.
15 (*d*)	,, 38 Virginis	,, ,,	225	,,	8 29 19·82	H.
15	,, ,,	Sheepshanks Equatorial	100	,,	8 29 19·95	J. S.
15 (*a*)	Reapp. ,,	Astrographic Equatorial	225	Bright	8 47 31·72	H.
15 (*a*)	Disapp. *k* Virginis	,, ,,	225	Dark	11 29 9·36	H.
15	,, ,,	Sheepshanks Equatorial	100	,,	11 29 9·46	J. S.
Sept. 19	Reapp. θ' Tauri	,, ,,	100	,,	16 36 10·82	J.
19	,, W. B. (2) IV. 450	,, ,,	100	,,	16 53 43·95	J.
Oct. 4	Disapp. B. F. 2471	Astrographic Equatorial	225	,,	6 36 26·26	W. S.
4	,, ,,	Sheepshanks Equatorial	100	,,	6 36 26·70	S. D.
Nov. 3	,, Piazzi XX. 250	Astrographic Equatorial	225	,,	5 51 27·08	W. S.
3	,, O. A. (S) 20742	,, ,,	225	,,	6 7 52·38	W. S.
3	,, B. D. $-17°$, 6081	,, ,,	225	,,	9 10 9·33	W. S.
6 (*b*)	,, W. B. XXIII. 29	,, ,,	225	,,	5 39 35·82	W. S.
7	,, 27 Piscium	,, ,,	225	,,	7 29 49·28	H.
7	,, ,,	Great Equatorial	670	,,	7 29 49·02	H. F.
7	,, ,,	Great Equatorial (Corbett)	120	,,	7 29 49·22	J. S.
7 (*a*)	Reapp. ,,	Astrographic Equatorial	225	Bright	8 41 41·58	H.

Day.	Phenomenon.	Telescope.	Power.	Moon's Limb.	Mean Solar Time of Observation. h m s	Observer.
1905.						
Nov. 7 (*b*)	Disapp. 29 Piscium	Astrographic Equatorial	225	Dark	10 25 59·75	H.
7	,, ,,	Sheepshanks Equatorial	100	,,	10 25 59·92	J. S.
7 (*a*)	Reapp. ,,	Astrographic Equatorial	225	Bright	10 50 39·39	H.
Dec. 9 (*c*)	Disapp. *f* Tauri	,, ,,	225	Dark	4 48 41·42	J. S.
9	,, W. B. III. 569	,, ,,	225	,,	10 13 6·58	W. S.

Notes.

(*a*) Instantaneous. (*b*) Observation doubtful. (*c*) Very faint, foggy. (*d*) Not quite instantaneous.

The apertures of the telescopes used are as follows :—

	inches.		inches.
Great Equatorial	28	Great Equatorial (Corbett Telescope)	$6\frac{1}{2}$
Merz Refractor	$12\frac{3}{4}$	Thompson Equatorial (Hodgson Telescope) ...	6
Astrographic Equatorial (Guiding Telescope) ...	10	Old Altazimuth	4
Sheepshanks Equatorial	$6\frac{3}{4}$		

The initials D., H., C. D., D. E., W. B., H. F., W., J. S., P. M., W. S., R. C., S. D., V., B. E., J., Bies., are those of Mr. Dyson, Mr. Hollis, Mr. Davidson, Mr. Edney, Mr. Bowyer, Mr. Furner, Mr. Witchell, Mr. Storey, Mr. Melotte, Mr. Stevens, Mr. Cullen, Mr. Daniels, Mr. Vagg, Mr. B. Evans, Mr. James, and Mons. Biesbroeck respectively.

Royal Observatory, Greenwich:
1906 *March* 8.

Proposed Plan of the Basic Work of the Perth Observatory.

By W. E. Cooke, M.A.

When we have to design a programme of future work we ought to report our intentions to our "scientific world" and invite criticism. More especially is this the case with a new observatory, and I feel that I owe it to astronomers all over the world to state just what work I definitely propose that the Perth Observatory shall undertake and to invite the fullest criticism.

The Perth Observatory, it must be remembered, is at present only an infant, astronomically speaking. Its environment is not even yet free from disturbing elements, and it has already had several severe attacks, one of which nearly proved fatal. In this latter case its life was probably saved by the kindly intervention of the Royal Society. It will easily be understood therefore, that, with the work of the International Photo-Durchmusterung on hand, my thoughts have hitherto been mainly concentrated upon the immediate present. I have recently, however, had a short breathing space, and think that hopes may not unreasonably be entertained that the necessity for the existence of the Observatory is now recognised by our leading politicians, and that the work will be allowed to proceed undisturbed. Taking, then, for granted that this is an institution whose activities will proceed for centuries, it seems advisable from the start to lay down a programme for a century's work rather than one from year to year. If the Astronomer Royal were asked just wherein the Greenwich observations were so specially valuable, he would doubtless reply that it was because a definite programme (viz. the observation of the positions of the Sun, Moon, planets, and fixed stars) was originally laid down, and has been continued ever since.

We are at present engaged upon the Zone 32°-40° of the International Photo-Durchmusterung, and in connection with that work it has been necessary to select a list of standard stars for observation with the transit-circle. I have endeavoured to find three suitable ones in each square degree; though, of course, this has not been possible in all cases. *This list I propose to observe perpetually*, so that not only will there soon be a catalogue of reference points in this portion of the sky available for immediate use, but, as time goes on, the positions will be determined with greater and greater accuracy, and eventually also the proper motions.

My desire is to work through this list once every ten years, making three determinations of position of each star in each decade. To do this by the ordinary methods of fundamental work would be difficult or impossible with only two computers, who are also the observers, and who have other duties in addition to perform; and it will be necessary to contrive short cuts both for the observing and computing.